

FILE COPY

08/903,944

(FILE 'USPAT' ENTERED AT 14:13:45 ON 24 AUG 1998)

L1 343 S POINSETT?
L2 542 S EUPHORBIA OR PULCHERRIMA
L3 68204 S REGENERAT?
L4 199812 S TRANSFORM?
L5 715 S L1 OR L2
L6 30 S L5 (L) L3
L7 39 S L5 (L) L4
L8 52 S L6 OR L7
L9 1 S L5 (20A) L3
L10 5 S L5 (20A) L4
L11 6 S L9 OR L10

=> d 1-6

1. PP 9,632, Aug. 20, 1996, Poinsettia plant named 'Red Splendor'; Scott C. Trees, PLT/86.4 [IMAGE AVAILABLE]
2. 5,283,184, Feb. 1, 1994, Genetic engineering of novel plant phenotypes; Richard A. Jorgensen, et al., 435/172.3, 320.1; 800/205, DIG.12, DIG.67; 935/30, 35, 64, 67 [IMAGE AVAILABLE]
3. 5,231,020, Jul. 27, 1993, Genetic engineering of novel plant phenotypes; Richard A. Jorgensen, et al., 435/172.3, 320.1; 800/205, DIG.67; 935/30, 35, 67 [IMAGE AVAILABLE]
4. PP 8,250, Jun. 8, 1993, Poinsettia plant--BFP-437G cultivar; Scott C. Trees, PLT/86.4 [IMAGE AVAILABLE]
5. 5,034,323, Jul. 23, 1991, Genetic engineering of novel plant phenotypes; Richard A. Jorgensen, et al., 435/172.3; 800/205, DIG.67; 935/30, 35, 67 [IMAGE AVAILABLE]
6. 4,634,674, Jan. 6, 1987, Plant regeneration from protoplasts; Elias

FILE COPY

081903, 944

(FILE 'HOME' ENTERED AT 14:23:03 ON 24 AUG 1998)

FILE 'AGRICOLA, BIOSIS, EMBASE, WPIDS' ENTERED AT
14:23:16 ON 24
AUG 1998

L1 1804 S POINSETT?
L2 6348 S EUPHORBIA OR PULCHERRIMA
L3 171192 S REGENERAT?
L4 434764 S TRANSFORM?
L5 7232 S L1 OR L2
L6 29 S L5 (L) L3
L7 34 S L5 (L) L4
L8 26 DUP REM L6 (3 DUPLICATES REMOVED)
L9 23 DUP REM L7 (11 DUPLICATES REMOVED)
L10 47 S L8 OR L9
L11 47 DUP REM L10 (0 DUPLICATES REMOVED)
L12 15 S L5 (20A) L3
L13 12 S L5 (20A) L4
L14 27 S L12 OR L13
L15 23 DUP REM L14 (4 DUPLICATES REMOVED)
L16 25 S L11 NOT L15

=> d bib ab 1-5

L15 ANSWER 3 OF 23 AGRICOLA
AN 97:9004 AGRICOLA
DN IND20544788
TI ***Transformation*** of ***Euphorbia*** lathyrus by
Agrobacterium rhizogenes.
AU Cheetham, R.; Follansbee, E.; Weathers, P.
CS Worcester Polytechnic Institute, Worcester, MA.
AV DNAL (80 Ac82)
SO Acta horticulturae, Aug 1996. No. 426. p. 511-518
Publisher: Wageningen : International Society for Horticultural
Science.
CODEN: AHORA2; ISSN: 0567-7572
NTE Paper presented at the International Symposium on Medicinal
and
Aromatic Plants, August 27-30, 1995, Amherst, Massachusetts.
Includes references
CY Netherlands
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L15 ANSWER 8 OF 23 BIOSIS COPYRIGHT 1998 BIOSIS
AN 92:449313 BIOSIS
DN BR43:82313
TI PLANT DEVELOPMENT FROM PROTOPLASTS OF
MEMBERS OF BRYOPHYTA
PTERIDOPHYTA AND SPERMATOPHYTA UNDER
IDENTICAL CONDITIONS.
AU BINDING H; GOERSCHEN E; HASSANEIN A M; QING L H;
MORDHORST G; PUCK G;
RUDNICK J; RONG W G; TRUBERG B
CS BOT. INST., UNIV. OLSHAUSENSTRASSE 40-60, W-2300
KIEL 1, GER.
SO VIII INTERNATIONAL PROTOPLAST SYMPOSIUM,
UPPSALA, SWEDEN, JUNE 16-20,
1991. PHYSIOL PLANT 85 (2). 1992. 295-300. CODEN:
PHPLAI ISSN:
0031-9317
DT Conference
LA English

L15 ANSWER 9 OF 23 AGRICOLA DUPLICATE
4
AN 92:92351 AGRICOLA
DN IND92054624

TI High uniformity of plants ***regenerated*** from
cytogenetically
variable embryogenic suspension cultures of ***poinsettia*** (
Euphorbia ***pulcherrima*** Willd. ex Klotzsch).
AU Geier, T.; Beck, A.; Prell, W.
CS Forschungsanstalt Geisenheim, Geisenheim, FRG
AV DNAL (QK725.P54)
SO Plant cell reports, Apr 1992. Vol. 11, No. 3. p. 150-154
Publisher: Berlin, W. Ger. : Springer International.
CODEN: PCRPD8; ISSN: 0721-7714
NTE Includes references.
DT Article
FS Non-U.S. Imprint other than FAO
LA English
AB Shoot tip explants, callus and embryogenic cell suspensions of
Euphorbia pulcherrima have been examined for quantitative
variation
in nuclear DNA content by means of cytophotometry. Increasing
instability was found in calli and cell suspensions from Erlenmeyer
flask and bioreactor culture. Nuclear DNA content ranged from 2 C
up
to 32 C. Plants regenerated from embryogenic cell suspensions,
however, were highly uniform with regard to phenotype and ploidy
level indicating strongly impaired embryogenic potential of
polyploid, aneuploid or other genetically altered cells.

L15 ANSWER 12 OF 23 BIOSIS COPYRIGHT 1998 BIOSIS
AN 89:386249 BIOSIS
DN BA88:66839
TI ORGANOGENESIS IN CELL CULTURES OF LEAFY SPURGE
EUPHORBACEAE
ACCESSIONS FROM EUROPE AND NORTH AMERICA.
AU DAVIS D G; OLSON P A; STOLZENBERG R L
CS USDA/ARS METAB. RADIATION RES. LAB., STATE
UNIVERSITY STATION, FARGO,
ND 58105, USA.
SO PLANT CELL REP 7 (4). 1988. 253-256. CODEN: PCRPD8
ISSN: 0721-7714
LA English
AB Plants were ***regenerated*** from leafy spurge (
Euphorbia esula L.) cell suspensions obtained from stem
callus. A North Dakota accession was highly regenerable, but two
accessions from Oregon and Austria formed only a few plantlets.
Organogenesis occurred in media without growth regulators, under
fluorescent lights (30 to 90 .mu.E m-3 s-1, 14 h photoperiod).
Organogenesis was greatest in larger size clumps subcultured
during
maximum cell growth into media containing a reduced: oxidized
nitrogen ratio of 33:67. Roots formed first and some clumps
produced
shoots. Organogenic suspension cultures also were initiated from
hypocotyl and root segments of germinated seedlings, directly in
liquid medium. Plantlets of the North Dakota accession formed in
vitro adapted to greenhouse conditions. They were phenotypically
similar to the parent plants.

L15 ANSWER 13 OF 23 WPIDS COPYRIGHT 1998 DERWENT
INFORMATION LTD
AN 87-029379 [04] WPIDS
DNN N87-022165 DNC C87-012493
TI Plant regeneration from protoplast - with extn. of protoplast from
donating plant which has been isolated from its source of
endogenous
hormones.
DC C03 D16 P11
IN SHAHIN, E A
PA (ATLF) ATLANTIC RICHFIELD CO
CYC 1
PI US 4634674 A 870106 (8704)* 15 pp

ADT US 4634674 A US 83-478955 830325
PRAI US 83-478955 830325
AB US 4634674 A UPAB: 930922

An in vitro method for preconditioning cultivated tomato plants that will be used as sources of protoplast donating plant tissue when extracting protoplasts to be used for regenerating cultivated tomato plants from cultured protoplasts comprises (a) germinating a

surface
sterilised protoplast donating tomato plant seed, derived from cultivated tomato plants, until a shoot extends from the seed, (b) growing the shoot in a nutrient medium, to which no exogenous plant hormones have been added, until the shoot develops into a small tomato plant let having expanded leaves and a stem, (c) exposing the

tomato plant let to total darkness, (d) excising tissue from the tomato plant let, (e) treating the excised tomato plant tissue with pre-enzyme treatment (PET) soln., the PET soln. being comprised of an osmoticum to which exogenous plant hormones have been added, and

(f) using the excised, tomato plant tissue as a source protoplast donating tomato plant tissue when extracting protein to be used for regenerating cultivated tomato plants from cultured tomato protoplasts. Pref. the cultivated tomato plants are hycopersicon esculentum tomato plants.

USE/ADVANTAGE - The process allows plant regeneration from the protoplasts of plants which have previously resisted such techniques. Other crop plants which have previously been difficult to ***regenerate*** from somatic cells such as cotton, legumes, e.g. soybeans, members of the cucurbitaceae family, the brassica species and the ***euphorbia*** species are also generated by the process.

0/7

L15 ANSWER 14 OF 23 BIOSIS COPYRIGHT 1998 BIOSIS
AN 87:430412 BIOSIS
DN BR33:89239
TI ***REGENERATION*** IN LEAF CALLUS CULTURES OF ***EUPHORBIA***
-HIRTA LINN.

AU BABURAJ S; DHAMOTHARAN R; SANTHAGURU K
CS DEP. BOT., THIAGARAJAR COLL., MADURAI 625 009, INDIA.
SO CURR SCI (BANGALORE) 56 (4). 1987. 194. CODEN: CUSCAM ISSN: 0011-3891
LA English

L15 ANSWER 16 OF 23 BIOSIS COPYRIGHT 1998 BIOSIS
AN 86:97500 BIOSIS
DN BA81:7916
TI THE EXTREMELY LOW FREQUENCY ELECTRICAL PROPERTIES OF PLANT STEMS.
AU HART F X
CS DEP. PHYSICS, UNIV. SOUTH, SEWANEE, TN 37375.
SO BIOELECTROMAGNETICS 6 (3). 1985. 243-256. CODEN: BIOEDI
LA English
AB The electrical properties (variation of capacitance and conductance

with frequency) of a plant stem can be conveniently measured in vivo by time domain dielectric spectroscopy. In this technique a voltage step is applied to a stem. The resulting polarization current is sampled by a microprocessor and Fourier- ***transformed*** to yield these properties. Spectra were obtained for seven electrode

separations along a ***Poinsettia*** stem. The inverse capacitance and conductance were plotted vs separation for 50 frequencies from .35 to 350 Hz. Least-square fits yielded the effective dielectric constant and conductivity of the stem over this frequency range. In this way electrode effects were eliminated. A similar procedure was carried out for Coleus. A log-log plot of dielectric constant vs frequency shows a two-stage linear decrease for both plants. The conductivity is primarily DC. The dielectric loss decreases smoothly with frequency for Coleus. These results are compared to those for bone and the inorganic material hollandite. The dielectric properties seem best described by a cooperative, many-body approach.

L15 ANSWER 17 OF 23 BIOSIS COPYRIGHT 1998 BIOSIS
AN 86:76557 BIOSIS
DN BR30:76557
TI DETERMINATION IN PLANT CELLS.
AU WAREING P F; AL-CHALABI T
CS DEP. BOTANY MICROBIOL., UNIV. COLL. WALES, ABERYSTWYTH, DYFED, UK.
SO INTERNATIONAL SYMPOSIUM ON PLANT GROWTH REGULATORS, LIBLICE, CZECHOSLOVAKIA, JUNE 18-22, 1984. BIOL PLANT (PRAGUE) 27 (4-5). 1985.
241-248. CODEN: BPABAJ ISSN: 0006-3134
LA English

L15 ANSWER 19 OF 23 BIOSIS COPYRIGHT 1998 BIOSIS
AN 84:311917 BIOSIS
DN BA78:48397
TI POTENTIAL FOR ADVENTITIOUS REGENERATION OF SELECTED WEED SPECIES.
AU LANGSTON V B; HARGER T R; JOHNSEY P S
CS DEP. PLANT PATH. AND CROP PHYSIOL., LA. AGRIC. EXP. STN., LA. STATE UNIV. AGRIC. CENT., BATON ROUGE, LA. 70803.
SO WEED SCI 32 (3). 1984. 360-363. CODEN: WEESA6 ISSN: 0043-1745
LA English
AB The potential of several common weed species to produce adventitious

shoots when the plants were excised .apprx. 1.0 cm below the cotyledonary node at the cotyledon growth stage and at the 4 true-leaf stage is reported. Indian jointvetch (Aeschynomene indica L.), northern jointvetch [A. virginica (L.) B.S.P.] and wild ***poinsettia*** (***Euphorbia*** heterophylla L.) produced adventitious shoots at both growth stages after shoot excision. Adventitious and vegetative ***regeneration*** of wild ***poinsettia*** damaged by herbicides was similar to that from decapitation. [Abutilon theophrasti, Amaranthus spp., Caperonia palustris, Cassia obtusifolia, Croton capitatus, Cucumis melo, Ipomoea hederacea, I. lacunosa, Calonyction muricatum, Jacquemontia tamnifolia, Melochia corchorifolia, Sesbania exaltata, Sida spinosa and Xanthium pennsylvanicum were also studied.]

L15 ANSWER 20 OF 23 BIOSIS COPYRIGHT 1998 BIOSIS
AN 84:151335 BIOSIS
DN BR27:67827
TI PHOTOSYNTHESIS IN THE 4 CARBON PATHWAY PLANT ***EUPHORBIA***
-DEGENERI A COMPARISON OF LEAVES CALLUS AND ***REGENERATED*** PLANTS.
AU RUZIN S E; BASSHAM J A
CS LAB. OF CHEMICAL BIODYNAMICS, UNIV. OF CALIF., BERKELEY CA 94720.
SO ANNUAL MEETING OF THE AMERICAN SOCIETY OF PLANT PHYSIOLOGISTS, DAVIS,

CALIF., USA, AUG. 12-17, 1984. PLANT PHYSIOL 75 (SUPPL. 1), 1984.

160. CODEN: PLPHAY ISSN: 0032-0889

DT Conference

LA English

L15 ANSWER 21 OF 23 BIOSIS COPYRIGHT 1998 BIOSIS

AN 84:286123 BIOSIS

DN BA78:22603

TI THE USE OF TIME DOMAIN DIELECTRIC SPECTROSCOPY TO CHARACTERIZE THE

PROGRESS OF WOUND REPAIR.

AU HART F X

CS DEP. PHYSICS, UNIV. SOUTH, SEWANE, TN 37375.

SO J BIOELECTR 1 (3), 1982 (1983) (RECD. 1984). 313-328.

CODEN: JOUBDX

ISSN: 0730-823X

LA English

AB The electrical properties of wounded plant [Poinsettia, Coleus] tissue are observed to change during the course of healing. Such changes could serve as an objective measure of the progress of repair. Time domain dielectric spectroscopy is used to rapidly measure these properties. Under microprocessor control a voltage step

is applied to a stem and the resulting current-time characteristic sampled. Fourier transformation yields the variation of stem conductance and capacitance with frequency.

L15 ANSWER 23 OF 23 AGRICOLA

AN 73:39413 AGRICOLA

DN 73-9164114

TI Ultrastructural study of the ***transformation*** of the apical meristem of ***Euphorbia*** cyparissias L. In nutrient tissue under the action of *Bayeria capitigena* (Bre.)

Etude ultrastructurale de la ***transformation*** du meristeme apical de l' ***Euphorbia*** cyparissias L. en tissu nourricier sous l'action du "*bayeria capitigena* (Bre.)

AU Jauffret, F

AV DNAL (505 P21 (3))

SO Acad Sci (Paris) C R Ser D, Feb 12, 1973 Vol. 276, No. 7, pp. 1177-1180.

DT Journal; Article

LA French

=> d bib ab 1-5

L16 ANSWER 1 OF 25 AGRICOLA

AN 1998:22121 AGRICOLA

DN IND20624720

TI Nutrient uptake in poinsettia during different stages of physiological development.

AU Whipker, B.E.; Hammer, P.A.

AV DNAL (81 SO12)

SO Journal of the American Society for Horticultural Science, July 1997. Vol. 122, No. 4. p. 565-573

Publisher: Alexandria, Va. :

ISSN: 0003-1062

NTE Includes references

CY United States; Virginia

DT Article

FS U.S. Imprints not USDA, Experiment or Extension

LA English

AB 'Supjibi' ***poinsettias*** (***Euphorbia*** ***pulcherrima*** Willd.) were grown hydroponically for 15 weeks

in nutrient solutions with 100-15-100, 200-30-200, or 30-46-300 (in

mg.L-1 of N-P-K) to determine nutrient uptake patterns and accumulation rates. Results indicate that increasing fertilization

rates from 100 to 300 mg.L-1 of N and K did not significantly influence the plant dry mass or the nutrient concentration of P, K, Ca, Mg, Na, B, Cu, Fe, Mn, Mo, and Zn in ***poinsettias***. NH4-N concentration in the leaves, stems, and roots were lowest with

the 100-mg.L-1 N fertilization rate and increased as the N application rate increased to 200 and 300 mg.L-1. Leaf P concentration levels from 1 week after potting through anthesis were above 1.3%, which exceeds the recommended level of 0.9%. When the

plant tissue dry mass for each fertilizer rate was ***transformed*** by the natural log and multiplied by the mean tissue nutrient concentration of each fertilizer rate, there were no significant differences among the three fertilization rates when the total plant nutrient content was modeled for N, P, or K. Increasing the fertilizer application rate above 100 mg.L-1 N and K and 15 mg.L-1 P decreased total plant content of Ca, Mg, Mn, and Zn and increased the total plant Fe content. The results of the weekly nutrient uptake based on the total plant nutrient content in this study suggests that weekly fertilization rates should increase over time from potting until anthesis. Rates (in mg) that increase from 23 to 57 for N (with 33% of the total N supplied in the NH4-N form),

9 to 18.5 for P, 19 to 57 for K, 6 to 15 for Ca, and 3 to 8 for Mg can be applied without leaching to ***poinsettias*** and produce

adequate growth in the northern United States.

L16 ANSWER 2 OF 25 AGRICOLA

AN 97:81930 AGRICOLA

DN IND20604446

TI Ingenane and lathyrane diterpenes from the latex of *Euphorbia canariensis*.

AU Marco, J.A.; Sanz-Cervera, J.F.; Yuste, A.

CS Universidad de Valencia, Spain.

SO Phytochemistry, June 1997. Vol. 45, No. 3. p. 563-570

Publisher: Oxford : Elsevier Science Ltd.

CODEN: PYTCAS; ISSN: 0031-9422

NTE Includes references

CY England; United Kingdom

DT Article

FS Non-U.S. Imprint other than FAO

LA English

AB The latex of ***Euphorbia*** canariensis yielded, in addition to

five known ingenol esters, the ingenane derivatives ingenol 3-angelate 5,20-diacetate and 5-deoxyingenol 3-angelate 20-acetate,

and the lathyrane derivatives 2,3-diepiingol 7,12-diacetate 8-benzoate, 2,3-diepiingol 7,12-diacetate 8-isobutyrate and 2-epiingol 3,7,12-triacetate 8-benzoate. The structures were established with the aid of spectroscopic methods, mainly NMR, and

molecular mechanics calculations. They were also supported by the results of some chemical ***transformations***.

L16 ANSWER 3 OF 25 AGRICOLA

AN 96:10237 AGRICOLA

DN IND20497195

TI In vivo characterization of a graft-transmissible, free-branching agent in poinsettia.

AU Dole, J.M.; Wilkins, H.F.

CS Oklahoma State Univ., Stillwater, OK.

AV DNAL (81 SO12)

SO Journal of the American Society for Horticultural Science, Nov 1992.

Vol. 117, No. 6. p. 972-975

Publisher: Alexandria, Va. :

ISSN: 0003-1062

NTE Includes references

CY United States; Virginia

DT Article

FS U.S. Imprints not USDA, Experiment or Extension

LA English

AB The free-branching ***poinsettia*** (***Euphorbia***
pulcherrima Willd. ex. Klotzsch) cultivar Annette Hegg
Brilliant Diamond (BD) contained a free-branching agent that was
graft-transmissible to the restricted branching cultivar Eckespoint
C-1 Red (CR). CR plants were ***transformed*** by the agent
regardless of whether BD plants were used as scion or stock,
indicating that the agent moved basipetally and acropetally through
the graft union. The agent was repeatedly transmitted to a CR plant
by serial grafting with a free-branching ***poinsettia*** plant.
A minimum of 10 days contact through grafting was required for

BD
plants to transmit the agent to CR plants. Percentage of CR plants
exhibiting the free-branching characteristic increased from 0% for
<10 days of graft contact with BD plants to 100% after 30 days.

L16 ANSWER 4 OF 25 AGRICOLA

AN 93:77830 AGRICOLA

DN IND93051973

TI Organogenesis in leafy spurge (*Euphorbia esula* L.).

AU Davis, D.G.; Olson, P.A.

AV DNAL (QK725.143)

SO In vitro cellular & developmental biology : plant, July 1993. Vol.
29P No. 3. p. 97-101

Publisher: Columbia, MD : Tissue Culture Association.

CODEN: IVCPEO; ISSN: 1054-5476

NTE Includes references.

DT Article

FS U.S. Imprints not USDA, Experiment or Extension

LA English

L16 ANSWER 6 OF 25 AGRICOLA

AN 88:106889 AGRICOLA

DN IND88038630

TI Organogenesis in cell cultures of leafy spurge (*Euphorbiaceae*)
accessions from Europe and North America.

AU Davis, D.G.; Olson, P.A.; Stolzenberg, R.L.

AV DNAL (QK725.P54)

SO Plant cell reports, 1988. Vol. 7, No. 4. p. 253-256 ill

Publisher: Berlin, W. Ger. : Springer International.

CODEN: PCRPD8; ISSN: 0721-7714

NTE Includes references.

DT Article

FS Non-U.S. Imprint other than FAO

LA English

L16 ANSWER 7 OF 25 AGRICOLA

AN 85:37647 AGRICOLA

DN IND85029041

TI Capillary microinjection into protoplasts and intranuclear
localization of injected materials.

AU Morikawa, H.; Yamada, Y.

AV DNAL (450 P699)

SO Plant and cell physiology, Mar 1985. Vol. 26 No. 2. p. 229-236
ill

Publisher: Kyoto : Japanese Society of Plant Physiologists.

CODEN: PCPHA5; ISSN: 0032-0781

NTE Includes references.

DT Article

FS Non-U.S. Imprint other than FAO

LA English

L16 ANSWER 8 OF 25 BIOSIS COPYRIGHT 1998 BIOSIS

AN 97:217436 BIOSIS

DN 99523940

TI Ecophysiological studies on *Euphorbia paralias* under soil salinity
and sea water spray treatments.

AU Elhaak M A; Migahid M M; Wegmann K

CS Botany Dep., Fac. Sci., Tanta Univ., Tanta, Egypt

SO Journal of Arid Environments 35 (3). 1997. 459-471. ISSN:

0140-1963

LA English

AB ***Euphorbia*** *paralias* L. was studied on the coastal dunes
in

Egypt, and its seeds were germinated under greenhouse conditions
and subjected to 0, 200 and 400 mM soil salinity in combination with
one

or two sprays per day by sea water. phytosociological studies
revealed greater importance value for *E. paralias* at slightly saline
locations and on the sea side of the coastal sand dunes. The plant
also exhibited low transpiration rate and relative water content but
high dry matter content in the dry (summer and autumn) compared
with

the wet seasons (winter and spring). Under greenhouse conditions,
E.

paralias responded to the imposed stresses by: decreasing daily
mean

transpiration, shifting the time of maximum transpiration to be at
the time of minimum evaporative demand of the atmosphere,
attaining

several peaks of transpiration corresponding to favourable
conditions, and exhibiting noticeable night transpiration. Combined
stress of high soil salinity and sea water spray greatly inhibited
plant control of water loss. Salinity alone or in combination with
once a day sea water spray decreased transpiration. CO-2 fixation at
night, as indicated by the accumulation of malic acid, indicated
transformation of plant photosynthesis into a CAM
pathway.

Salinity alone greatly increased night malic acid accumulation
compared to sea water spray. The percentage of dead leaves
increased

after treatments, but the high control on water loss and increased
dry matter by night fixation of CO-2 increased plant water-use
efficiency.

L16 ANSWER 9 OF 25 BIOSIS COPYRIGHT 1998 BIOSIS

AN 96:386100 BIOSIS

DN 99108456

TI Ingenane diterpenes from *Euphorbia petiolata*.

AU Shi Y-P; Jia Z-J; Ma B; Saleh S; Lahham J

CS Inst. Org. Chem., State Key Lab. Applied Org. Chem., Lanzhou
Univ.,

Lanzhou 730000, China

SO Planta Medica 62 (3). 1996. 260-262. ISSN: 0032-0943

LA English

AB From the whole plants of ***Euphorbia*** *petiolata*, four new
ingenane-type diterpenoids, 3,20-O-diacetylingenol
5-O-(2'E,4'Z)-tetradecadienoate (1), 5,20-O-diacetylingenol
3-O-(2'E,4'Z)-tetradecadienoate (2), ingenol 3-O-(2'E,4'Z)-
tetradecadienoate (3), and 5,20-O-isopropylidenylingenol
3-O-(2'E,4'Z)-tetradecadienoate (4) were isolated. Their structures
were elucidated by spectroscopic methods and chemical
transformations.